



What is meconium aspiration syndrome?

Meconium [muh-cone-ee-um] **aspiration** [as-per-a-shun] syndrome (MAS) is a type of breathing problem.

What causes MAS?

Meconium is the dark green **feces** (stool) that the baby makes before birth. In most cases, the meconium is passed into the diaper when the baby starts to feed after birth.

Sometimes, the meconium is passed while the baby is still in the womb. This can happen when the baby is under stress (for example, not getting enough oxygen). If there is meconium in the womb, the baby may aspirate it (breathe it in) before or during birth.

Meconium in the lungs can:

- Block the airway and cause parts of the lung to collapse
- Trap air inside the lungs and cause them to expand too much
- Cause inflammation (irritation) of the lungs
- Increase the risk of lung infection

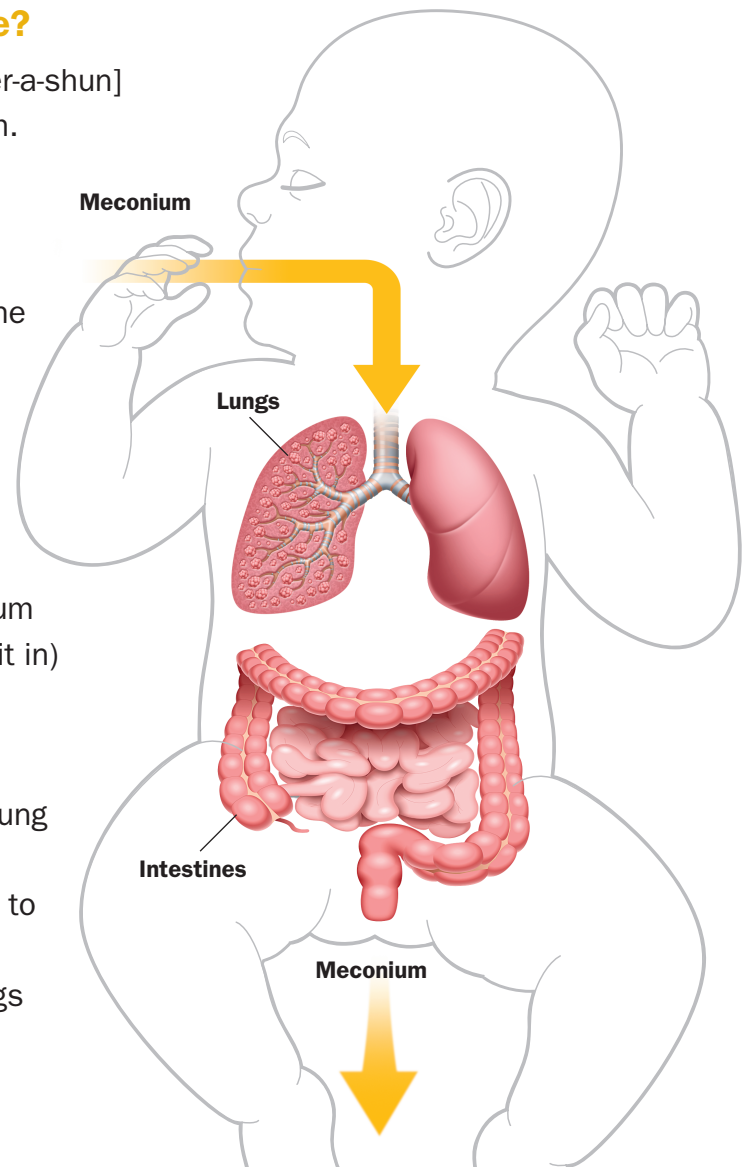
What are the symptoms of MAS?

Babies with MAS have trouble breathing. They may:

- Breathe rapidly (**tachypnea**)
- Sharply pull in their chest muscles when breathing in (**retraction**)
- Have bluish skin (**cyanosis**) due to low levels of oxygen
- Have low blood pressure (**hypotension**)

How common is MAS?

About 1 in 10 babies pass meconium in the womb. But only about 1 in 200 babies develop MAS.



Meconium is the feces (stool) that the baby makes before birth. If the meconium is passed before birth, the baby may inhale it. This can cause breathing problems.

Understanding Meconium Aspiration Syndrome (continued)

What are the risk factors for MAS?

- The baby being overdue (past 40 weeks)
- The baby not getting enough oxygen from the placenta
- Difficult delivery or long labor
- High blood pressure, diabetes, or infection in the mother

How is MAS diagnosed?

If meconium was passed in the womb, it can be seen in the **amniotic fluid** during birth. MAS is suspected when meconium is seen and the baby is having trouble breathing. The diagnosis is confirmed with a chest X-ray after the baby is stable.

How is MAS treated?

Babies with MAS often need help with breathing. That help may be:

- Suctioning meconium out of the airway at birth
- Extra oxygen
- **Mechanical ventilation**, if needed
- Medicines to make breathing easier (for example, **surfactant** or **nitric oxide**)

Antibiotics are often used to treat possible infections.

What will happen next?

Most babies with MAS have no long-term problems. However, some babies with MAS may have a more serious condition, such as **PPHN (persistent pulmonary hypertension of the newborn)**. Talk to the health care team. They can answer any questions you have about your baby.

Glossary

Amniotic fluid – watery substance that surrounds a baby in the womb

Aspiration – breathing in something not normally found in the lung

Cyanosis – bluish color of the skin

Feces – stool

Hypotension – low blood pressure

Meconium – dark green feces that a baby makes before birth

Mechanical ventilation – using a machine to help your baby breathe

Nitric oxide – Medicine that helps blood flow in the lung

PPHN (persistent pulmonary hypertension of the newborn) – a problem with blood flow from the lungs to the heart that makes it hard for the baby to get enough oxygen after birth

Retractions – using chest muscles in order to breathe in, which causes the skin to suck in around the bones

Surfactant – a medicine that helps keep the alveoli (tiny air sacs in the lungs) open so that oxygen can be used

Tachypnea – rapid breathing

Ask the health care team when you have questions—they are there to help.

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